Overview of Forest Reserve (Passive Management Areas) Selection and Management Policies

Biodiversity conservation has increasingly recognized the shortcomings in simply using the single species, "fine filter" approach to conservation, and is accordingly emphasizing the conservation of ecological communities and ecosystems. Coupled with this emphasis has been an increased appreciation for natural processes and landscape-level factors that sustain these communities and ecosystems. One of the goals of ecoregional and resource management planning is to identify viable examples of all types of ecosystems at appropriate scale to conserve their component species and processes. These examples of ecosystems are important as "coarse filters" for the conservation of most common species, wide-ranging fauna such as large herbivores, predators, and forest interior birds. Viable examples of forest ecosystems allow for the maintenance of dynamic ecological processes, and support species and communities that utilize late successional forest habitat.

Forest Reserves (Passive Management Areas) are areas that are "set-aside" from the traditional land management base. These areas protect important habitat or landscape features, provide habitat for species that utilize older and complex forest structure, serve as controls for research and as places where natural systems and disturbance regimes can function relatively free of human interference. Forest Reserves may include habitat for species that utilize late successional forest habitat. Forest Reserves may also contain archeological sites.

There are large and small-scale Forest Reserves on EOEA system lands. Large-scale Forest Reserves use a coarse filter approach to protect relatively complete ecological communities and ecosystems, while small-scale Forest Reserves apply a fine filter approach to protect specific landform and habitat features.

a. Large-scale Forest Reserves

The location of large-scale reserves is a process that takes into account landscape features, past and present forest land use, ownership patterns, and social costs and benefits. The EOEA working group that recommends large-scale Forest Reserve candidates identified candidate sites by assessing the following assumptions.

1. Large-scale Forest Reserves are designed to:

    - Represent late successional habitat and baseline control data and information for the relatively unfragmented forest landscapes that remain in the state. The goal was to include a candidate site in each of the 8 ecological land units (regions with similar elevation and geology) that still have large, unfragmented forests.
    - Withstand and recover from large-scale disturbance processes.

- Be anchored in large state-owned lands, but with the potential to be supplemented by federal, municipal, non-profit, and private holdings.

2. Twenty-two (22) relatively unfragmented "forest blocks" were identified through a statewide large-scale Forest Reserve planning process. This process and forest blocks represent some of the best opportunities for conserving a large-scale Forest Reserve systems in the Commonwealth. These areas are the least fragmented by roads and have the largest patches and greatest percentage of interior forest, key components of successful reserves.

3. Representation of Massachusetts' forest types is best achieved by stratifying large Forest Reserves across the diversity of ecological conditions that occur in relatively unfragmented forest landscapes. The candidate sites represent seven of the eight unfragmented ecological land units and five of the fourteen ecoregions of the state.

4. Approximately 20% of EOEA system lands in total may be in a large (approximately 10%) or small (approximately 10%) scale Forest Reserve system (result of analysis and public involvement).

Beginning with these assumptions, the working group developed eleven criteria with which to evaluate the relative biodiversity value of the original 22 potential large-scale Forest Reserves. EOEA then convened a stakeholder workshop to evaluate, revise and weight these criteria. The resulting criteria were weighted according to the relative importance assigned by the stakeholders:

Criteria	**Weight**
Acreage of Old Growth	.268
Acreage of Valley Bottom Land	.188
Percent Protected Land in Surrounding Area	.115
Percent 1830s Forest	.114
Number of Viable Rare Communities	.108
Percent Forest Cover in Surrounding	.051
Percent Biomap of Ambystomid Habitat	.047
Percent Riparian and Wetland Forest	.035
Acreage of Largest Interior Forest	.025
Percent Forest Interior	.025
Percent Living Waters CSW	.023

Following this analysis, feasibility criteria (density of road, residential development, other adjacent compatibly managed, protected open space, utility lines, past and present land use, motorized recreation, etc.) were used to evaluate potential Forest Reserves during field verification checks. Forest Reserves were modified base on this review. Following both biodiversity evaluation and feasibility review, a working list of proposed large-scale Forest Reserves was created.

Large-scale Forest Reserve: Desired Condition

The desired condition for the large-scale Forest Reserve is a late successional native forest where forest succession and natural disturbances are allowed to proceed relatively free of human intervention. Passive recreation is allowed and encouraged. A long-term forest monitoring program will be implemented to see if late successional conditions are achieved and to see how the conditions in the reserves differ from forests with traditional silvicultural treatments.

Large-scale Forest Reserve Proposed Management Guidelines

Recreation, Public Access, and Visual Resources

A. Low impact activities are permitted, including dispersed and non-motorized recreation.

B. Intensive, development-dependent recreation is not permitted.

C. New trail construction is permitted only if limited to stable areas and located to avoid adverse impacts to late successional forest habitat, rare species, water quality, and to known or potential archaeological sites.

D. Retain area in natural state and enhance existing natural landscape by restoring native vegetation.

E. Minimal cutting of vegetation to maintain existing public vistas is permitted.

F. Vegetation within the Appalachian Trail (AT) corridors within Forest Reserves will be managed via natural processes with exceptions. Hazardous trees directly adjacent to the trail, of imminent, substantial risk to public safety may be cut. Existing vistas should be maintained. New vistas will not be allowed.

G. The AT within Forest Reserve will be managed and maintained according to AT and DCR trail standards.

H. Commercial timber management including salvage is prohibited in Reserves. Exceptions include the removal of non-native species or control of a major forest pathogen if there is a major threat to forest health or risk to public and private property or human health.

I. Non-motorized recreation experience opportunities should be provided year-round. Primitive recreation experience opportunities may be available in specific locations and at particular times of the year.

J. When there is snow cover, snowmobile use is allowed on previously designated trails.

K. ORV trails and use is prohibited.

L. Moderate to highly developed campgrounds, administrative sites, visitor centers, parking areas, trailheads, or a high concentration of trails should not be constructed.

M. Low-density trail network, low impact "back-country" sites and facilities are allowed.

Silviculture and Vegetation Management

A. Habitat creation and maintenance, and traditional silvicultural treatments and operations are not permitted with the following exceptions:

   a. Natural Heritage & Endangered Species Program recommendations used to restore, maintain or enhance habitat for rare and endangered species, and exemplary rare communities.

   b. Restore native vegetation by removing non-native vegetation such as plantations (for example non-indigenous species)).

   c. Control of undesirable non-native invasive species will be permitted under certain conditions.

   d. Vegetation management will be permitted to control erosion or stabilize soils, close roads, or close unauthorized trails.

   e. Limited cutting of vegetation will be allowed for maintenance of trails and maintain existing roads.

B. Acreage in the reserve is excluded from the annual sustainable harvest calculation.

C. Research that causes no adverse impact to the forest reserve will be permitted through a formal written proposal process, approved in advance by the Divisional Directors or their designees.

D. New fields, vistas, and wildlife openings are prohibited.

Water and Soil Resources

A. Reserves that are also within the watersheds of the Division of Water Supply Protection, Office of Watershed Management may be subject to more active management to protect drinking water supplies. These practices may include either natural resource management practices or the construction of infrastructure deemed necessary to protect public health. DWSP/OWM reserves the right to supersede forest reserve management policies when and if these practices become necessary.

B. In order to continue to meet mandates to protect water supply, recreational access in reserves that fall within OWM watersheds will not be expanded beyond what is allowed in current OWM access plans.

C. Sensitive wetland resource areas and associated buffers will be managed to protect and enhance habitat and water quality (for example at wood road crossings).

D. Management will be permitted to control erosion or stabilize soils, close roads, or close unauthorized trails.

Forest Health and Protection

A. Spread of major significant forest pathogens will be controlled if there is a major threat to forest health or risk to private or public interests.

B. Non-destructive, low impact research for monitoring forest conditions may be established.

C. Wildfires will be contained, controlled, and suppressed.

D. Prescribed fire may be used when it is compatible with protection of the forest reserve, restoration of native communities and ecological processes, and the protection of life and property in the reserve or the surrounding landscape.

Transportation

A. No new roads will be constructed.

B. Passage through the area is allowed on existing stable roadbeds or trails. Passage on ungated public roads on state land within the Reserves is allowed as in the past.

Facilities

A. Construction of new facilities is prohibited, except as noted above for the protection of drinking water supplies. Other exceptions may include small scale, low impact, natural appearing informational kiosks, universal access structures, and carefully designed boardwalks.

Special Uses

A. Existing uses are allowed. Uses that are not compatible with the intent of forest reserves are periodically evaluated to determine if they can be re-located to another zone.

B. New communications sites are prohibited.

C. Wind towers are not allowed.

b. Small-scale Forest Reserves

Approximately 5% of Division of Fish and Wildlife and approximately 10% of Department of Conservation and Recreation system lands may be identified as small-scale reserves. The Forest Reserves will be identified and designated through the Resource Management Planning, public participation, and agency approval processes.

Small-scale ***Forest Reserve: Desired Condition***

The desired condition for the small-scale forest reserve is a late successional native forest where forest succession and natural disturbances are allowed to proceed relatively free of human intervention. Human use is allowed, however uses and activities are consistent with providing a natural, relatively undisturbed landscape.

Small-scale Forest Reserve Management Guidelines

The management guidelines for small-scale reserves are the same as those for large-scale reserves.